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# DSA PROCEDURE #07-01

Issue Date: January 24, 2007

Revision Date:

To: **DSA Regional Offices Staff  
Interested Parties**

From: **Division of the State Architect  
Department of General Services  
State of California**

SUBJECT: **Pre-Check (PC) Approval Process**

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**1. Purpose and Goal:** The purpose of this procedure is to describe the DSA requirements for the submission of the design of a building or structure for pre-check (PC) review and the processes DSA uses to approve such PC designs. The PC program provides for DSA approval of the design of a structure in advance of submittal for specific school campus construction projects.

PC approval process can be used for modular buildings, shade structures, light standards (poles), and other structures where the approved design may be used on multiple campuses or projects. Once the PC documents have been approved, they can be submitted with site specific drawings. The approval of a site specific project is expedited since the part of the project that is PC approved will not need to be reviewed again.

## **2. Pre-Check (PC) Submittal:**

**2.1 Required Documents:** The required documents that need to be submitted for PC approval are as listed on the [Project Submittal Checklist](http://www.dsa.dgs.ca.gov) found on the DSA website ([www.dsa.dgs.ca.gov](http://www.dsa.dgs.ca.gov)). Site specific information is not necessary as that information will be provided when a specific school campus construction project is submitted for DSA review.

**2.2 Fee Deposit Requirement:** A deposit of \$3,000.00 is required when a PC project is submitted for review. Final fees will be charged based on number of hours to perform the review at the established hourly rates DSA determines each year for the reviewers' work. Before review begins, DSA will estimate the time needed for review. If it is estimated that the plan review of the PC submittal will take more than 30 hours, DSA may request additional deposit money prior to the start of review. The actual total fee will be based on the actual hours expended on the review. DSA will either refund money or invoice for additional fees as appropriate. If additional fees are required, payment must be received before PC plans are approved.

**2.3 Revisions to PC Designs:** Any revision to the approved PC drawings without DSA review and approval automatically voids the PC approval. If revisions are requested to a PC approved design, a new PC application, per Sections 2.1 and 2.2 above, is required, except that the fee deposit will be \$1,500. The revisions to the drawings and affected calculations need to be clearly indicated. The DSA plan reviewer will check only those portions of the design that are impacted by the revisions.

If errors or omissions are discovered in an existing PC Design, they shall be corrected through this PC Revision process.

**2.4 Renewal:** Renewal of a PC is required when a new building code becomes effective or significant code change occurs. The applicant must submit an application for renewal in accordance with Section 2 above. An initial renewal deposit is required per Section 2.2, except the amount will be \$1,500 for renewal.

**3. Multiple-Option PC:** PC projects may include options for construction that would be determined when the PC design drawings are selected for a specific school site. Options may include alternative foundation systems, number of modules, length of the modules, width of the modules, location of windows and doors, etc. However, if the options or combinations thereof in a single PC become too numerous or complicated, it renders the PC impractical and inefficient for use in Over-the-Counter (OTC), expedited, or conventional plan reviews. See Attachment A, which lists only major variations.

In order to meet the allocated time for OTC specified in Section 4.3, multiple options for minor and major variations are described in Sections 3.1 and 3.2 below. All the options or variations requested on a PC must be shown and identified graphically on separate drawings, elevations, floor plans, details, etc.

**3.1 Minor variations:** There are currently no limits on the number of minor variations within a major option. Qualified minor variations are as follow:

- 1) `In general window and door sizes and locations in moment frame buildings,
- 2) Cladding types, and
- 3) Non-critical changes per Section 4.3 below.

**3.2 Major options:** The maximum number of major options allowed in a single PC is listed in Attachment A. When the total number of options exceeds the allowable listed (including the base case), applicants are required to file a separate PC application in accordance with Title 24, Part 1, Section 4-317.

**3.3 Consultation with DSA:** When submittal of a multiple-option PC is anticipated, the Regional Office needs to be contacted to ensure that the Multiple-Option PC can be efficiently reviewed and once approved will result in drawings that can be efficiently reviewed for Over-the-Counter (OTC) review, for expedited review or for conventional submittal projects.

#### **4. PC Review:**

**4.1 PC Review Priority:** PC plan reviews have equivalent priority as conventional project plan review submittals.

**4.2 Design Requirements:** The design must comply completely with all Title 24 regulations, including energy. Designs for one-story buildings less than 2,160 square feet in area may use the exceptions to Title 24, California Code of Regulations as noted in [Interpretations of Regulations](#) (IR) 16-1 and 16-4. The submittal must be complete in order for the PC design to be placed in the queue for plan review. Intake specialists will review the submittal to ensure completeness. If controversial issues arise, the [Rapid Interpretation Process](#) (PR 05-01) will be used to resolve disagreements.

**4.2.1** For energy-related requirements, see DSA Bulletin "PRE-CHECK (PC) DESIGNS - ENERGY COMPLIANCE REVIEW," Revised September 15, 2003 ([http://www.documents.dgs.ca.gov/dsa/bulletins/bulletinrevPC\\_rev9-15-03.pdf](http://www.documents.dgs.ca.gov/dsa/bulletins/bulletinrevPC_rev9-15-03.pdf)).

**4.3 Non-critical Changes:** During the PC review process, DSA and the PC design architect may agree upon a set of non-critical changes that would be permissible

during an OTC review. OTC reviews for site placement of PC approved designs are anticipated to take only 2 hours. These non-critical changes would need to be approved as part of the PC design and will be shown on the drawings. These small changes are allowed only if they would result in OTC appointments that do not exceed 2 hours. If larger changes to the PC approved drawings are anticipated, DSA again will meet with the PC design architect to map a strategy for an expedited review should any of these larger changes be required for site placement of the PC approved designs. Changes to the drawings and specifications and associated calculations should be clearly shown on the submitted documents for site placement to assist the plan reviewers in identifying the changes and focusing the review effort.

**4.4 Pre-Plumbed Fire Sprinkler System:** When specifying pre-plumbed fire sprinkler systems in a PC, the system shall be designed with the Pipe Schedule Method for water supply requirements. A note, identical to the examples in Attachment C, shall be shown on the plans.

**4.5 Information on Cover Sheet:** To expedite OTC and other project reviews, the itemized information listed on Attachment B must be shown on PC drawings cover sheet.

## **5. PC Approval:**

**5.1 PC Stamp-Out:** The final set of the PC approved plans and specifications must show the regular DSA stamp (with the application identification and reviewers initial blocks) and the following PC stamp. These stamps could be pre-printed on the drawings and specification by the applicant.

### **PRE-CHECK (PC) DOCUMENT**

**Code: 2001 CBC**

**A separate project application for construction is required.**

**5.2 Record Sets:** A Record set of each approved PC will be kept in the DSA files. A PC design approved in one DSA Regional Office will be accepted in all other DSA Regional Offices without additional review. The PC design structural engineer or architect in general responsible charge shall follow the procedures outlined in DSA [Policy 06-01](#) regarding the creation of a Record Set by DSA and the return of original drawings and specifications. Form [DSA-145](#) must be signed and submitted along with the original documents prior to receiving final approval.

**5.3 Revocation:** DSA reserves the right to revoke any PC approval. The grounds for revocation include (but are not limited to) the following:

- 1) Approval was granted on the basis of false information submitted.
- 2) The PC design has demonstrated a history of unsafe or unsatisfactory performance.
- 3) Repeated structural modifications during fabrication.
- 4) Any unauthorized deletions, additions, or alterations of any DSA approved plans or specification.

## **Attachment A: Allowable Multiple-Options in a Single PC<sup>1</sup>**

**(All options must be shown and identified graphically on drawings.)**

Description of Major Options		Total Options Allowed in a PC (including the base case)
1.	Floor live load	3 <sup>2</sup>
2.	Roof live load	2
3.	Wind speed	1
4.	Seismic zone	1
5.	Geometry or footprint of building individual module	1
6.	Roof configuration and construction	
	a. Type of construction	1
	b. Slope: single, dual or multiple	4
	c. Mansard	1
7.	Type of Floor construction at any level	1
8.	Wall framing – type of construction	1
9.	Lateral force resisting system	1
10.	Foundation	1 <sup>3</sup>
11.	Occupancy, E, B, A, etc. (MB construction type per CBC Table 5-B for the occupancy)	1
12.	Automatic fire sprinkler system	0 <sup>4</sup>
13.	“Total Coverage” fire alarm design	1

### **Footnotes:**

1. These limitations are not intended to apply to non-building structures, such as lunch or car shelters, or flag or light poles, etc.
2. Floor live load in excess of 125 psf requires a separate PC application.
3. Two options (wood or concrete) are allowed for single story less than 2000 ft<sup>2</sup> in area.
4. This PC is DSA approved for buildings structurally supporting a weight of 15 psf of the fire sprinkler system. If fire sprinkler system is required, it may be submitted as a deferred approval item. Installation of deferred approval items shall not be started until the contractor's drawings, specs, and engineering calculations for the actual system to be installed have been accepted and signed by the architect or structural engineer and approved by DSA.

## **Attachment B: Information to be Shown on PC Drawings Cover Sheet**

<b>Description</b>	
<b>General</b>	
<input type="checkbox"/>	1. All applicable codes and standards
<input type="checkbox"/>	2. Show complete PC specifications on drawings <sup>1</sup>
<input type="checkbox"/>	3. All multiple options per Sections 2.1 and 2.2
<b>Design Parameters</b>	
<input type="checkbox"/>	1. Floor live loads
<input type="checkbox"/>	2. Roof live loads
<input type="checkbox"/>	3. Ramp live loads
<input type="checkbox"/>	4. Snow loads and posting
<input type="checkbox"/>	5. Wind load
<input type="checkbox"/>	6. Design roof dead load
<input type="checkbox"/>	7. Design floor dead load
<input type="checkbox"/>	8. Seismic zone and coefficients
<input type="checkbox"/>	9. Soil types/ strength
<input type="checkbox"/>	10. Climate zone
<b>Building Data</b>	
<input type="checkbox"/>	1. Classification of type of construction per CBC, Part2, Chapter 6
<input type="checkbox"/>	2. Use or occupancy classification per CBC, Part2, Chapter 3
<input type="checkbox"/>	3. No. of story
<input type="checkbox"/>	4. Building areas
<input type="checkbox"/>	5. Module size
<b>Structural Data</b>	
<input type="checkbox"/>	1. Lateral resisting system
<input type="checkbox"/>	2. Foundation
<input type="checkbox"/>	3. Minimum required seismic separation from other existing or future buildings
<input type="checkbox"/>	4. Testing and Inspection List
<input type="checkbox"/>	5. Identify whether building is designed to support a fire sprinkler system or not
<b>Fire Life Safety<sup>3</sup> (FLS)</b>	
<input type="checkbox"/>	1. Allowable specific uses for each room
<input type="checkbox"/>	2. Indicate whether an automatic fire sprinkler system is required or not. If required, a general description of fire-protection system (pipe schedule or hydraulic automatic fire sprinkler system <sup>2</sup> )
<input type="checkbox"/>	3. Note per Attachment C
<b>Access Compliance (ACS)</b>	
<input type="checkbox"/>	1. Accessible door signs and/or rest room accessories provided by a School District or the PC manufacturer shall have locations, details and specifications indicated in the PC drawings with CBC references.

### **Footnotes:**

- 1) Specifications submitted separately on paper size that is different from drawing size are not acceptable unless prior permission is secured from DSA. If permitted, the title sheet of PC drawing set shall show index of specifications and add the following statement:  
"Complete specifications for this PC are listed on a separate document."
- 2) Automatic fire sprinkler systems based on hydraulic calculation to meet water supply available at each site shall not be reviewed over-the-counter (OTC).
- 3) Placement of junction boxes for all fire alarm appliances and conduit with pull strings shall be shown on PC drawings. Placement of "J" boxes shall conform to the requirements for a "total coverage" system per NFPA 72. (Also see [DSA IR 11B-1.](#))

**Attachment C: Notes for Automatic Fire Sprinkler Systems**

A note, identical to that shown below, shall appear on the plans.

***For Pre-Plumbed buildings:***

**Automatic Fire Sprinkler Systems PC Note -  
Pre-Piped Buildings:**

This building is pre-piped to accommodate an automatic fire sprinkler system, per NFPA 13 Pipe Schedule Method for water supply requirements. The minimums shown below must be met. A single fire sprinkler system shall be limited to 5000 square feet. Buildings of greater area will require additional systems.

Residual pressure requirements shall be met at the elevation of the highest sprinkler. Minimum water supply requirements shall be as follows:

<b>Occupancy Hazard Classification</b>	<b>Classification Residual Pressure Required (psi)</b>	<b>Acceptable Flow at Base of Riser (Including Hose Stream Allowance) (gpm)</b>	<b>Duration (minutes)</b>
Light Hazard	15	750	60
Ordinary Hazard	20	1500	90

Note: A complete Automatic Fire Sprinkler System submittal package, for pre-piped systems, must be provided at time of PC submittal.

Test results for the site, signed by the local water purveyor, the Local Fire Authority, or by an independent certified water testing company, must accompany the submittal of the plans for each specific campus site.

***For Hydraulically Calculated buildings:***

**Automatic Fire Sprinkler Systems PC Note -  
Hydraulically Calculated Buildings:**

Automatic Fire Sprinkler Systems are permitted to be hydraulically calculated, per NFPA 13, to meet the water supply available at each site. Plans for such systems may only be submitted as a deferred submittal, and may not be reviewed utilizing the "Over the Counter" process. A complete Automatic Fire Sprinkler System submittal package must be provided at the time of the deferred submittal.